Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Human Health Risk Assessment – data gaps, key questions		
Lifetime ingestion of drinking water	needs to be included in the CSM	
Transition zone water	resolve concerns about sampling and how to assess risk	
VOCs in fish tissue	determine how to evaluate this	
Exposure to in-water sediments	resolve disagreements with LWG on this	
Exposure to breast milk	determine whether to include this pathway; it will come up with the public	
Work-related diving exposure pathway	determine whether to include it for risk assessment	
Bivalves	determine whether to include them as a consumption pathway, and if so, which species to use	
Determining background, upstream and ambient concentrations of COPCs	develop a process for doing this	
Lamprey, sturgeon and salmon data	determine what data is needed and how to fill gaps	
PBDEs	determine whether more work is needed on these chemicals (very little done to date)	
Food-web model	determine how it will be used and additional data needed to cover what the model can't do; government team should run the model to answer our questions rather than wait for the LWG to do it	
Cleanup levels for bioaccumulative chemicals	determine how to develop these (i.e., base cleanup levels on mass?) and create a model with mass conservation capability	
Assessing risk in areas outside of Early Action boundaries	determine how this will be done and who will do it	
Level of additional data needed if risks are known	agree on "how much information is enough?" if we know that risk exists at a site	
Process for moving forward		
Assignment for HH Team	Outline a plan for the addressing data gaps, key questions and issues, and identify which issues the HH team can take on itself, which issues the larger TCT needs to address, what help the HH Team needs from others (our contractors, outside experts, etc.), and which issues we should direct the LWG to resolve or address for us. The plan will be brought back to the TCT for review/discussion, and TCT meetings will be scheduled to resolve HH issues as needed.	

Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Ecological Risk Assessment – data gaps, key questions		
Bioassays	determine whether more data is needed to answer site-specific questions and help define sites	
Benthic tissue (clams, worms)	determine additional sampling needed and how data will be used	
Sturgeon and lamprey	compile what is known about biology and distribution and determine assessment method for the ERA	
Assessing PAHs	determine process for doing this, aside from the proposed dietary approach	
Sculpin	determine whether additional samples are needed to fill information gaps; consider annual and/or seasonal sampling at certain sites	
Assessing risk in areas outside of Early Action boundaries	determine how this will be done and who will do it	
ERA objectives	need to be revisited and clarified; potential need to combine ERA Tech Memos into one document	
ERA assessment of groundwater and seeps	determine how this will be done	
TPH risk assessment	determine what methods to use	
Phthalates	determine additional data needed to assess risk, assumptions to use in evaluation, how to address phthalates in transition zone water, and what screening levels to use	
Data gap between high and low water line on the river bank	clarify LWG and upland RP responsibilities for characterizing this area and what and screening criteria to use	
Upriver ecological risk assessment	determine how to do this	
ISA boundaries	determine whether to assess biologically as well as chemically	
ERA CSM	need to revisit and revise it	
Level of additional data needed	determine “how much information is enough?” to characterize ecological risk at the site; agree on level of uncertainty we’ll accept	
ERA schedule	ground-truth where we are and the work needed for a sufficient ERA to support an effective ROD; determine whether requisite sampling can be done in one field season, or whether more time will be needed	
Food Web Model for the ERA - data gaps, key questions		
Algae and phytoplankton	more sampling needed for the FWM and understanding fate and transport	
Eco-fate model	direct LWG to evaluate this model	

Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Fate and transport data	describe data needs (i.e., suspended sediment concentrations, sedimentation rates, resuspension rates, flow, temperature, etc.); important for the FWM	
Water column data	determine additional sampling needed and extent to which the food web is driven by benthic vs. water column biota; evaluate sources of water column contamination	
Biota and/or fisheries sampling	determine whether additional sampling is needed to understand species home ranges	
Transition zone water	determine how TZW will be used in FWM	
Level of additional data needed	evaluate available data and determine how much information is sufficient; identify achievable endpoints for data collection	
FWM schedule and data needs related to RI/FS	ground-truth where we are and the work needed for a sufficient FWM, including fate and transport	
Process for moving forward		
In general	We need to be more directive to LWG, *and* realistic about what we can achieve; must be clear about what we need as a team (i.e., data gaps) and why we need it.	
Assignment for Val and Burt	Outline our objectives, expectations and strategy for ERA per our conversation at the retreat. The draft outline will be a starting point for Eco Team for review/discussion, and the Eco Team will add specifics on how we want the LWG to meet our expectations (i.e., how we want data gaps filled, etc.), including timelines for getting the work done.	
Assignment for Eco Team	Outline major tasks for addressing ERA needs and identify which tasks the Eco Team can take on itself, which tasks the larger TCT needs to address, what help the Eco Team could use from others (our contractors, outside experts, etc.), and which issues we should direct the LWG to resolve or address at this point. The plan will be brought back to the TCT group for discussion, and used as a starting point for facilitated Eco Team work sessions to resolve issues and needs. Hold facilitated Eco Team work sessions in September and October to reach agreement on data needs, justification for collecting additional data, direction to the LWG on how data gaps should be filled, CSM changes, and timelines for getting the work done. Develop clear expectations to communicate to the LWG for an effective ERA.	

Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Physical System – data gaps, key questions		
Integration of sediment chemistry into CSM	reach agreement on how to do this; government team's idea is more dynamic than the LWG's stagnant model	
Potential upstream sources of surface water contaminants (e.g., dioxins)	need to look closer at surface water data	
Background, ambient, baseline sediment and surface water concentrations	evaluate and determine adequacy of historic upstream data, define data break points, identify data gaps	
Historic sources	need a better understanding of historic sources; develop maps and integrate historic operations/processes	
Ability of hydrodynamic model to evaluate sediment stability, exposures	determine whether model is sufficient, identify options and/or changes needed	
Source identification	determine whether sufficient data exists to link contaminants to current and historic sources	
High priority outfalls	evaluate data and determine how to build outfalls in to CSM adequately	
Magnitude of source inputs	determine whether we are adequately evaluating the right sources; assess what pathway is contributing mass (loading) to the river system (groundwater, stormwater, in-water sediment, river operations)	
Extent of sediment contamination	determine need for additional deep cores to adequately define extent	
Dioxins in sediments	source of dioxins in sediments is unclear; determine additional sampling needed, both archived samples and new locations	
PCBs	sediment results, patterns and concentrations are higher at depth; need additional deep sediment data to enable adequate characterization; relate to fate & transport and hydrodynamic models to determine if deep contaminants are bioavailable	
PCB solubility in groundwater	need to examine this	
Sediment management areas	look at how SMAs will be defined and how well nature and extent must be defined for the RI, RA and FS	
Extent of study area	determine whether upstream and downstream areas are adequately characterized, identify data needs to define and limit the study area	
Understanding site geology	develop a better understanding of site geology (basalt structure) to clarify pathways, especially in particular areas (i.e., Rhone Poulenc)	
Data variability and unexpected results	evaluate data at individual sites to better understand pathways, nature and extent; revise the CSM	

Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Upstream sediment migration	determine whether there is potential for sediments to migrate upstream due to ship traffic, tidal fluctuations, etc.; identifying where it may be most important	
Natural attenuation	determine how results will affect data gaps or need for additional cores	
In-water sediment sources associated with current or historic uses	need to identify potential sources	
Groundwater plume maps	show stratigraphy and integrate in-water and upland contaminant distribution	
Geologic/Hydrogeologic CSM	direct LWG to revise and update CSM; can be generated from deep core results, City CSO borings, historical maps; incorporate DEQ analyses	
Hydrodynamic model input parameter data	ask LWG to integrate Sedflume erosion data	
Process for moving forward		
Assignment for Physical Team	Begin integrating what we know about the system from the existing data, section by section. Identify data needs at multiple scales, determine how to address needs, ask LWG or our contractors for discreet tasks to help our data analysis, and potentially re-sequence some deliverables or take them off the table completely to eliminate unnecessary workload and stay focused on priority tasks.	

Upland Sources – data gaps, key questions		
Integrated CSM	start thinking about what an integrated in-water/upland CSM will look like and how to develop it	
Upland sources and risk	develop understanding of how upland sources affect ecological and human health risk	
Pathways	need to link to specific pathways from uplands to in-water, and upstream to ISA; create a mechanism for doing this	
Individual upland sources	determine additional data needs at individual sites to understand nature and extent, fate and transport, ecological and human health risk, and sediment cleanup goals	
Data gaps for upland/in-water integration	determine whether the LWG or upland RP should do the additional sampling needed to fill data gaps	

Initial data gaps and key questions identified by the Portland Harbor TCT in the August 16, 2005 retreat

Issue	Next Step	Timeline for resolution
Source control	determine how controlling sediment sources affects the harbor as a whole, and how to quantify those effects (i.e., data needs for modeling cleanup effects on fish tissue concentrations)	
Apply the FWM to localized areas	look at the value of doing this at certain sites	
Sources of downstream contamination	need to look at initial sources of downstream contamination and determine the origin of those sources to predict the effects of source control	
Process for moving forward		
Assignment for Physical/Upland integration team	Take an initial cut at integrating what we know about the nature and extent of contamination mile by mile to start identifying problem areas and initial SMAs. Add layers of complexity gradually and bring the human health and ecological risk teams into the process as needed. Use our contractor to start building the maps. Bring your product to the TCT group for review/ discussion; it will help us identify data needs at multiple scales.	

Overall – what's needed to keep the project on track	
Give the TCT the time needed to do this high priority work and be prescriptive with the LWG, especially on ERA and CSM	With much work ahead and limited time to get it done, we can't afford lengthy debates with the LWG on what we're looking for in terms of sampling and data analysis. To make our collaborative partnership with the LWG an effective one, the government team needs to clearly communicate our expectations and be prescriptive early-on to inform the LWG's work. Adjust LWG submittal dates for fall 2005 deliverables to allow TCT subgroups to review available data, identify and prioritize data gaps, and provide clear direction and expectations to the LWG. To reduce workload, look at taking unnecessary LWG deliverables off the table completely.